

II. Listing of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A surgical system for delivery of viscous fluid, comprising a housing having a handle portion and a coupling portion extending generally transverse to the handle portion,
a reservoir member for engaging with the external and internal annular flanges of the housing along the coupling axis, the reservoir member being sized and shaped to receive a viscous fluid prior to engagement with the housing,
a plunger member sized and shaped to be inserted into the coupling portion and translated through the reservoir member via engagement of the plunger member with the coupling portion,
a plunger head selectively attachable to and rotatable with respect to a distal end of the plunger member, the plunger head sized and shaped to engage and drive the viscous fluid through the reservoir member, the plunger head having a first circumference and the distal end of the plunger member having a second circumference wherein the first circumference and the second circumference are substantially equal when the plunger head engages and drives the viscous fluid through the reservoir member.
2. (Original) The system of claim 1 wherein the plunger member comprises a knob and a threaded member integrally formed with the knob.
3. (Original) The system of claim 2 wherein a portion of the knob is generally hemispherical, and a portion of the knob is generally undulating in cross-section.
4. (Original) The system of claim 3 wherein the portion of the knob that is generally hemispherical is a compression surface.
5. (Original) The system of claim 2 wherein the threaded member is adapted to engage a threaded region formed on an inner surface of the coupling portion.

6. (Original) The system of claim 1 further comprising an orifice defined through a distal end of the reservoir member.
7. (Original) The system of claim 6 further comprising a tubing inserted through the reservoir member via the orifice.
8. (Original) The system of claim 1 wherein the handle portion of the housing comprises an undulating surface.
9. (Canceled)
10. (Previously Presented) The system of claim 1 wherein the plunger head is flared outward to have a circumference of substantially equal size as the circumference of an inner annular surface of the reservoir.
11. (Previously Presented) The system of claim 1 wherein the distal end of the housing comprises a threaded annular flange for receiving a corresponding threaded proximal end of the reservoir member in a sealed engagement.
12. (Original) The system of claim 1 wherein the handle portion extends obliquely from the coupling portion to define an obtuse angle between the handle portion and the coupling portion.
13. (Previously Presented) The system of claim 2 wherein the diameter of the knob is larger than the diameter of the plunger head.
14. (Currently Amended) A surgical system for delivery of viscous fluid, comprising

a reservoir member for storing a viscous fluid, the reservoir member having a proximal portion including internal threads and a distal portion having an orifice defined in an end thereof,

a plunger member sized and shaped to engage the reservoir member in a threaded engagement with the internal threads of the reservoir member, and

a mixer assembly including a mixer shaft and a mixer head, the mixer shaft extending through the plunger member, the mixer assembly being rotatable to mix the viscous fluid,

wherein the plunger member is sized and shaped to be translated through the reservoir member while moving along the mixer shaft to eject the viscous fluid through the orifice of the reservoir member.

15. (Original) The system of claim 14 wherein the reservoir member further comprises an opening formed in an end of the reservoir member opposing the orifice end, the opening being adapted to receive the plunger member.

16. (Original) The system of claim 15 further comprising a funnel adapted to be inserted into the opening for aiding in the delivery of viscous fluid into the reservoir member.

17. (Original) The system of claim 14 wherein the plunger member is generally T-like in shape.

18. (Original) The system of claim 14 wherein the mixer assembly comprises a mixer and a mixer handle connectable with the mixer.

19. (Original) The system of claim 18 wherein the mixer includes a receptacle defined therein for receiving a corresponding post extending from the mixer handle.

20. (Original) The system of claim 18 wherein the mixer is adapted to be inserted into a first end of the plunger member and the mixer handle is adapted to be inserted into a second end of the plunger member, the second end opposing the first end.

21. (Currently Amended) The system of claim 18 wherein the mixer comprises a mixer head disposed on an end of the mixer, the mixer ~~[[bead]]~~ head having a plurality of mixer blades.

22. (Original) The system of claim 21 wherein the mixer blades each comprise a slot defined therethrough.

23. (Original) The system of claim 18 wherein the plunger member includes a bore defined therethrough, the bore defining an annular surface of the plunger member.

24. (Original) The system of claim 23 wherein the annular surface of the plunger member is threaded along a portion thereof.

25. (Original) The system of claim 24 wherein the mixer includes a threaded surface for engaging with the threaded portion of the inner annular surface of the plunger member.

26. (Original) The system of claim 14 wherein the reservoir member includes an undulating surface along a portion thereof.

27. (Currently Amended) A surgical system for delivery of viscous fluid, comprising
means for storing a viscous fluid,
means for ejecting the viscous fluid from the means for storing, and
means for mixing the viscous fluid within the means for storing, the means for mixing
being movable within the means for ejecting,

wherein the means for ejecting translates through the means for storing by translating
along the means for mixing during the ejecting of viscous fluid from the means for storing,

wherein the means for ejecting has an external threaded portion and the means for storing
has an internal threaded portion such that the means for ejecting engages the means for storing in
a threaded engagement during the ejecting of viscous fluid from the means for storing.

28. (Currently Amended) A surgical system for delivery of viscous fluid, comprising:
a housing having a coupling portion and a handle portion extending obliquely from the coupling portion;

a reservoir member having a threaded portion to engage with a threaded annular flange defined at a first end of the housing, the reservoir member being sized and shaped to store viscous material therein;

a plunger member insertable into a second end of the housing opposing the first end of the housing, the plunger member having a threaded member to engage a threaded annular surface of the coupling portion; and

a plunger head selectively attachable to and rotatable with respect to ~~[[an]]~~ a distal end of the plunger member, the plunger head being sized and shaped to drive and eject viscous fluid from the reservoir member via actuation of the plunger member, the plunger head having a first circumference and the distal end of the plunger member having a second circumference wherein the first circumference and the second circumference are substantially equal when the plunger head engages and drives the viscous fluid through the reservoir member.

29. (Original) The system of claim 28 wherein the plunger member further comprises a knob wherein a portion of the knob includes a generally hemispherical compression surface, and a portion of the knob includes a generally undulating surface.

30. (Currently Amended) A surgical method for delivering viscous fluid to an implant site, comprising:

providing a modular delivery system, the delivery system having a housing, a plunger member engageable with a first end of the housing, a plunger head selectively attachable to and rotatable with respect to a distal end of the plunger member, the plunger head having a first circumference and the distal end of the plunger member having a second circumference wherein the first circumference and the second circumference are substantially equal when the plunger

head engages and drives the viscous fluid through the reservoir member, and a reservoir member engageable with a second end of the housing;

loading viscous fluid into the reservoir member;
engaging the reservoir member with the housing;
engaging the plunger member with the housing; and
actuating the plunger member through the housing and into the reservoir member to eject viscous fluid from the reservoir member.

31. (Original) The method of claim 30 wherein engaging the reservoir member with the housing comprises engaging a threaded end of the reservoir member with a threaded annular flange of the housing.

32. (Original) The method of claim 30 wherein engaging the plunger member with the housing comprises inserting the plunger member into the housing and engaging a threaded portion of the plunger member with a threaded annular surface of the housing.

33. (Original) The method of claim 30 wherein actuating the plunger member comprises applying a compressive force and a rotational force to a knob provided with the plunger member.

34. (Previously Presented) A surgical method for delivering implant material to an implant site, comprising:

providing a plunger member having a bore defined therethrough;
disposing a mixer assembly through the bore of the plunger member, the mixer assembly comprising a mixer shaft and a mixer head;
inserting the plunger member into a reservoir member, the reservoir member having viscous fluid therein;
actuating the mixer assembly to mix the viscous fluid in the reservoir member; and
actuating the plunger-member by moving the plunger-member along the mixer shaft, within the reservoir member, to eject viscous fluid from the reservoir member.

35. (Original) The method of claim 34 wherein the mixer assembly comprises a mixer and a mixer handle, the mixer being adapted to engage the plunger member in a threaded engagement through a first opening defined by the bore, and the mixer handle being adapted to be disposed through a second opening defined by the bore to connect with the mixer.

36. (Original) The method of claim 34 wherein inserting the plunger member into the reservoir member comprises engaging a threaded surface of the plunger member with a threaded annular surface of the reservoir member.

37. (Original) The method of claim 34 wherein actuating the mixer assembly comprises applying a compressive force and a rotational force to a knob provided with the mixer handle.